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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/650,915   | 08/29/2003  | Fumiaki Kobayashi    | 1247-0519P          | 7982             |
| 2292   | 7590        | 08/30/2007           | EXAMINER            |                  |
| BIRCH STEWART KOLASCH & BIRCH<br>PO BOX 747<br>FALLS CHURCH, VA 22040-0747 |             |                      |                     | SONI, KETAN S    |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 2616   |             |                      |                     |                  |
| NOTIFICATION DATE  |             |                      | DELIVERY MODE       |                  |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/650,915             | KOBAYASHI, FUMIAKI  |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Ketan Soni             | 2616                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08/29/2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) 1 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 11/21/2006.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

**Information Disclosure Statement**

The information disclosure statements submitted on Nov 21, 2006 has been considered by the Examiner and made of record in the application file.

**Claim Objections**

Claim 1 is objected because of following formalities.

Remove "a" from claim 1 line - 9. The new line: 9 should read as ".. storing means for storing plurality types of.."

Appropriate correction is required.

**Claim Rejections - 35 USC § 112, Second paragraph**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Re claim 1, line 10, there is insufficient antecedent basis for ~~a~~ the "Center apparatus" in the preamble. In line: 10, reference is made to "each" center apparatus.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1 - 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knotts (US 6658260 B2) in view of Wolfman et al. (2002/0026472 A1).**

Consider **claim: 1**, Knotts discloses a communication terminal connected to a public line network (Fig: 2 @ 200, which is a core router connected with Public Network

(carrier 2, 3, etc.), for communicating with a center apparatus connected to the public line network (As shown in Fig: 2, Customer Carrier 1, 3 etc h1as SMSC for connection to the Public network) to send and receive short message data to/from another communication terminal via the center apparatus (Fig: 2, each Customer Carrier's SMSC are connected thru Inter-Carrier Messaging Module-100), comprising: communicating means that is connected to the public line network, for communicating with the center apparatus (As shown in Fig: 2, MDC is connected with different carriers 260, 270, 280), storing means for storing a plurality types of communication protocol information for each center apparatus to be used for communications of the communicating means (Fig: 2 @ 120 Carrier Routing Table stores information about different protocols and use of particular links),

selecting means for selecting a center apparatus to be communicated with among the center apparatuses whose communication protocol information is stored, based on a predetermined condition (Each carrier has different protocol and Each entry such as Fig: 4 @ 310 and Fig: 5 @ 488, associates with its carrier, and selection is made by entry of respective carrier col: 10, line: 20-21), and

controlling means for controlling the communicating means so as to send short message data to the center apparatus when sending the inputted short message data (a subscriber sends a short message addressed with the phone number, col: 5, lines: 53-55), and to receive short message data from the center apparatus when receiving the short message data, based on the communication protocol information of the center apparatus selected by the selecting means (Inter-Carrier Messaging Module (ICM) has

routing look up capabilities, and ICM Module takes control of the incoming message, and determines appropriate carrier for the recipients and routes the short message to destination carrier, col: 5, lines: 59-64). But Knotts is generally silent about the input means for inputting short message data and input format.

However in the same field of endeavor, Wolfman et al. discloses the input means for inputting short message data (Fig: 1 @ 12 Input Handler, Text or SMS input by the user as an input).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate and provide SMSC as a core router connected with PSTN and having a Carrier Database of different providers and determining appropriate carrier for the recipients and routing accordingly as disclosed by Knotts with the method of Wolfman et al. for inputting data by the user as part of input processing step. The motivation is to provide an Inter-Carrier messaging module to empower message providers with a single point of entry for the transaction of SMS messaging to a wide array of wireless network and unification of different SMSCs.

Consider **claim: 2**, and as applied to claim: 1 above, Knotts as modified by Wolfman et al. discloses claim: 1. Further taught by combination and specifically by Knotts the communication terminal of claim 1, wherein the storing means includes an individual storing region assigned to each of the plurality of center apparatuses and a common storing region assigned commonly to the plurality of center apparatuses (Fig: 2

@ 110 Carrier Database, which has an ID number of different carriers or service providers, and Fig: 4 and Fig: 5),

in which individual storing region, at least identification information to identify the center apparatus (Fig: 4 and 5, each carrier's information is stored in database, and each entry identifies carrier),

communication protocol information to be used for communications with the center apparatus (WIG acts as a multi-protocol router and connected with SMSC, col: 2, lines: 47-48 and fig: 3), and

short message data received from the center apparatus are stored (Short Message Service Center (SMSC) acts as a store-and-forward mechanism, col: 1, line: 55), and

the controlling means refers to the individual storing region assigned to the center apparatus selected by the selecting means (Fig: 4 and 5, each carrier's information is stored in database, and each entry identifies carrier), and controls the communicating means based on the identification information and the communication protocol information that are stored (In message distribution center, messages are organized by a phone number provided by a database associating subscriber MIN numbers with servicing carriers, and a database associating carriers with routing syntax, col: 4, lines: 45-47).

Consider **claim: 3**, and as applied to the communication terminal of claim 1, Knotts as modified by Wolfman et al. discloses claim: 1. Further taught by combination

and specifically by Knotts the communication terminal of claim: 1, further comprising: instructing means for instructing a center apparatus to be communicated with (The Inter-Carrier messaging module of the Inter-Carrier service provider (ICSP) determines the appropriate carrier for the recipient, col: 5, lines: 59-60), wherein the selecting means selects the center apparatus based on instruction of the instructing means (ICSP establishes communications between SMSCs of different carriers and routes the message, col: 5, lines: 63-64).

Consider **claim: 4**, and as applied to the communication terminal of claim 2, Knotts as modified by Wolfman et al. discloses claim: 2. Further taught by combination and specifically by Wolfman et al. wherein the detection of identification information is contained in a received incoming calling (Fig: 3-A @ 138, Step 138 compares information contained in the incoming received message to a database, col: 14, lines: 63-64), the selecting means compares the identification information detected by the communicating means with the identification information of the center apparatus stored in each individual storing region so as to select a center apparatus corresponding to the matched identification information (Fig: 3-C, step: 174 queries the database for the selection for required routing information, Additionally the messaging process of the different formats, hardware, protocol differences, etc are handled by the server using a routing database, col: 7, lines: 62-65). In addition Knotts discloses how the individual storing region assigned to the selected center apparatus (Fig: 4 and 5, each carrier's information is stored in database, and each entry identifies carrier, And ICSP

establishes communications between SMSCs of different carriers and routes the message, col: 5, lines: 63-64). In addition Knotts et al. discloses how the controlling of the individual storing region assigned to the selected center apparatus and controls the communicating means so as to receive short message data based on the stored communication protocol information (The messaging process of the different formats, hardware, protocol differences, etc are handled by the server using a routing database, col: 7, lines: 62-65).

Consider **claim: 5**, and as applied to the communication terminal of claim 2, Knotts as modified by Wolfman et al. discloses claim: 2. Further taught by combination and specifically by Knotts wherein a priority receiving flag indicating whether or not the center apparatus is a center apparatus whose short message data should be received by priority is stored in each individual storing region (MDC 200 is a store and forward messaging platform, col: 7, lines: 47-48. As shown in Fig: 2, ICM module 100 has a capacity to add originator address, priority, expiration of short message etc. Col: 11, lines: 49-50) the controlling means determines whether or not a vacant capacity of the individual storing region assigned to the center apparatus from which short message data is sent is smaller than a predetermined capacity when receiving the short message data (The MDC's current production capacity is 80 to 100 messages/second, and usage capacity can be monitored, and additional usage capacity can be added as needed, col: 9, lines: 20-22); when the vacant capacity is the predetermined capacity or more, the short message data is stored in the individual storing region (usage capacity can be

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monitored, and additional usage capacity can be added as needed that means that upon monitoring, if there is no need to have more space, message data is stored in the place according to their carrier, col: 9, lines: 21-22); and when the vacant capacity is smaller than the predetermined capacity, the priority receiving flag is referred to; and if the center apparatus from which the short message data is sent is a center apparatus whose short message data should be received by priority, the received short message data is stored in the common storing region (The MDC's current production capacity is 80 to 100 messages/second, and usage capacity can be monitored, and additional usage capacity can be added as needed, col: 9, lines: 20-22 ).

Consider **claim: 6**, and as applied to the communication terminal of claim 2, Knotts as modified by Wolfman et al. discloses claim: 2. Further taught by combination and specifically by Knotts where in the communication terminal of claim 2, further comprising: designating means for designating specific short message data among the received short message data that is stored in the storing means (Fig: 2 @ 110 Carrier Database, which has an ID number of different carriers or service providers, and Fig: 4 and Fig: 5), wherein the selecting means selects a center apparatus from which the short message data designated by the designating means are sent (SMSC receives a short message from any source intended to be delivered to a particular subscriber, then routes using carrier database. Even if the subscriber is not available because, for example, it is turned off, the short message will be retained in the SMSC for a later delivery attempt, col: 2, lines: 5-11), and the controlling means refers to the individual

storing region assigned to the selected center apparatus (SMSC receives a short message from any source intended to be delivered to a particular subscriber, then routes using carrier database, col: 2, lines: 4-5), and controls the communicating means so as to send the short message data inputted with the input means based on the stored communication protocol information (As shown in Fig: 3, carrier 2 uses SMPP, CDMP, OIS or RMI protocol, and carrier 1 uses SMPP or RMI protocol, additionally when SMSC receives a short message from any source intended to be delivered to a particular subscriber, then routes using carrier database, col: 2, lines: 4-5)).

Consider **claim: 7**, and as applied to the communication terminal of claim 1, Knotts as modified by Wolfman et al. discloses claim: 1. Further taught by combination and specifically by Knotts wherein an incoming calling signal is received from a center apparatus by the communicating means in the course of performing a process other than the process of sending and receiving short message data, the controlling means interrupts the ongoing process, and controls the communicating means so as to receive short message data, and the controlling means resumes the interrupted process when the short message data is completed to be received (SMSC has a highest priority. Only if the subscriber is turned off, the short message will be retained in the SMSC assigned to that particular subscriber for the later delivery attempt. As soon as the subscriber is turned ON, MSC and HLR notifies the SMSC to deliver the message, col: 2, lines: 11-16).

**Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knotts (US 6658260 B2) in view of Sawyer et al. (US 5946299).**

Consider **claim: 8**, and as applied to the communication terminal of claim 1, Knotts as modified by Wolfman et al. discloses claim: 1. But fails to disclose wherein the communication terminal of claim 1, further comprising: at least one of displaying means for displaying received short message data, and printing means for printing received short message data.

However in the same field of endeavor, Sawyer et al. discloses (mobile station 12 can generate an SMS message that is carried over the cellular network 10, converted by the functionality 28 in the message center 22, and then delivered as a facsimile transmission over the conventional telephone network 20(1) or an e-mail transmission over the LAN/WAN 20(2/3), col: 3, lines: 57-60).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate and provide SMSC as a core router connected with PSTN and having a Carrier Database of different providers and determining appropriate carrier for the recipients and routing accordingly as disclosed by Knotts and Wolfman et al. for inputting data by the user as part of input processing step with the method of Sawyer et al. for having SMS delivered as a facsimile transmission. The motivation is to provide an Inter-Carrier messaging module to empower message providers with a single point of entry for the transaction of SMS messaging to a wide array of wireless network and unification of different SMSCs.

### Conclusion

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

- Kobayashi et al. (U.S. Pub/Patent # 2004/0049551 A1) discloses: Communication Terminal.
- Willars et al. (U.S. Pub/Patent # 5946630) discloses: Method for storing & Forwarding short message to Mobiles in a Cellular communications.
- Mendiola et al. (U.S. Pub/Patent # US 2002/0026520 A1) discloses: Instant Messaging using sequential message protocol.
- Mendiola et al. (U.S. Pub/Patent # 7218921) discloses: Method and system for inviting and creating accounts for user of an IM system.
- Corrigan et al. (U.S. Pub/Patent # 7215970 B2) discloses: Message application router.
- Bennett et al. (U.S. Pub/Patent # 2002/0112014 A1) discloses: Network independent short message delivery system.
- Yoon et al. (U.S. Pub/Patent # US 7069030 B2) discloses: Server and method for short message service in private wireless network interworking with public land mobile network.
- Le Bodie et al. (U.S. Pub/Patent # US 7181231 B2) discloses: System of interoperability between MMS messages and SMS/EMS messages and an associated exchange method.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ketan Soni whose telephone number is (571) 270-1782. The Examiner can normally be reached on Monday-Thursday from 7:30am to 6:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Vanderpuye, Kenneth can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



KENNETH VANDERPUYE  
SUPERVISORY PATENT EXAMINER

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028. If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Ketan Soni

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Aug 16, 2007.



KENNETH H VANDERPUYE  
SUPERVISORY PATENT EXAMINER